

**METHOD AND APPARATUS PROVIDING GENERAL SPHERICAL  
SEARCH PATTERN, AND ALL SUB-SETS THEREOF, FOR ACQUISITION**

**ABSTRACT OF THE DISCLOSURE**

Disclosed is a method, apparatus and a computer readable media that provide an ability for a first platform and a second platform to obtain information that is descriptive of a relative location of the other. The method includes establishing an initial antenna pointing direction of the first and second platforms such that the pointing directions are opposite one another, and incrementally scanning each antenna in azimuth in the same direction in synchronism with one another in a plane referenced to a common reference plane until each antenna is within the other antenna's azimuth and elevation beamwidth during a scanning increment dwell time ( $T_{\text{DWELL}}$ ). Upon completing a scan in azimuth in the plane, the method changes an elevation angle of each antenna pointing direction relative to the plane by equal and opposite amounts, and repeats the incremental scanning of each antenna in azimuth in the same direction.